



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,139	11/01/2003	Thomas A. Moody		2915
31083	7590	06/02/2005		
THOMTE, MAZOUR & NIEBERGALL, L.L.C. 2120 S. 72ND STREET, SUITE 1111 OMAHA, NE 68124				
			EXAMINER KIM, TAE JUN	
			ART UNIT 3746	PAPER NUMBER

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,139

Applicant(s)

MOODY, THOMAS A.

Examiner

Ted Kim

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/12/2004</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 5, 15, 22 are objected to because of the following informalities: “said air plenum” lacks proper antecedent basis. Appropriate correction is required.
2. Claims 6, 16, 24 are objected to because of the following informalities: “door .. permit access to said [door?]” appears superficially confusing. This should be replaced with –fire damper door— for greater clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11, 13, 17-22, 24, 29, 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaplan et al (2005/0081525 with priority to 12/3/2002). Kaplan et al teach a method of cooling a liquid fuel valve 35 of a gas turbine positioned in an enclosure (dashed lines 24), comprising the steps of: providing an air inlet opening in the enclosure; providing an air conduit means 16, 26 having air inlet and air discharge ends; providing a source (blower) of forced cooling air 12; connecting said air inlet end of said air conduit means 26 to said source of forced cooling air; positioning said air discharge end of said

air conduit means with respect to said valve 35 so that the cooling air being discharged from said air discharge end 36 of said air conduit means will pass over said check valve to cool the same. Note that the symbol for 35 appears to be the standard symbol for check valve, alternately, the problematic valves are listed as including check valves in paragraph [0004]. As for the gas turbine being a dual fuel gas turbine this is disclosed in the background of the invention (col. 1, paragraph [0004]). Note that the gas turbine having a circumferential array of combustors is also disclosed in paragraph [0004]. In combination with a dual fuel gas turbine positioned within an enclosure 24, the gas turbine including a circumferential array of combustors (see paragraph [0004]); each of the combustors having a gaseous fuel line and a liquid fuel line in communication therewith for supplying either gaseous fuel or liquid fuel thereto; each of the liquid fuel lines having a check valve 35 imposed therein which is open when the gas turbine is being fueled with liquid fuel and which is closed when the gas turbine is being fueled with gaseous fuel, comprising: a cooling air conduit 16, 26 having an air inlet end in communication with a source/blower of forced ambient air 12 outside of the enclosure 24 and an air discharge 36 end which directs ambient air onto at least some of the check valves 35 to cool the same; a fire damper door 18 selectively pivots (pivoting is believed to be inherent to such dampers) to open and close said air inlet end of said air conduit; said cooling air conduit comprises an air manifold 22 which supplies forced ambient air onto a plurality of check valves; said air plenum/supply header 16 is mounted over said door 18 to enclose the same and wherein said air blower is mounted on said air plenum so

that said discharge end of said air blower is in communication with the interior of said air plenum.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11-15, 17-22, 24, 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan et al (2005/0081525 with priority to 12/3/2002). Kaplan et al teach a method of cooling a liquid fuel valve 35 of a gas turbine positioned in an enclosure (dashed lines 24), comprising the steps of: providing an air inlet opening in the enclosure; providing an air conduit means 16, 26 having air inlet and air discharge ends; providing a source (blower) of forced cooling air 12; connecting said air inlet end of said air conduit means 26 to said source of forced cooling air; positioning said air discharge end of said air conduit means with respect to said valve 35 so that the cooling air being discharged from said air discharge end 36 of said air conduit means will pass over said check valve to cool the same. Note that the symbol for 35 appears to be the standard symbol for check valve, alternately it would have been obvious to one of ordinary skill in the art to employ the valve as a check valve as a standard type valve used in such fuel circuits to prevent reverse flow. As for the gas turbine being a dual fuel gas turbine this

is disclosed in the background of the invention (col. 1, paragraph [0004]), and the problematic valves are listed as including check valves. Hence, it would have been obvious to apply the solution to the check valves. Note that the gas turbine having a circumferential array of combustors is also disclosed in paragraph [0004]. In combination with a dual fuel gas turbine positioned within an enclosure 24, the gas turbine including a circumferential array of combustors (see paragraph [0004]; each of the combustors having a gaseous fuel line and a liquid fuel line in communication therewith for supplying either gaseous fuel or liquid fuel thereto; each of the liquid fuel lines having a check valve 35 imposed therein which is open when the gas turbine is being fueled with liquid fuel and which is closed when the gas turbine is being fueled with gaseous fuel, comprising: a cooling air conduit 16, 26 having an air inlet end in communication with a source /blower of forced ambient air 12 outside of the enclosure 24 and an air discharge end 36 which directs ambient air onto at least some of the check valves 35 to cool the same; a fire damper door 18 selectively pivots (pivoting is believed to be inherent to such dampers – alternately it would have been obvious to make the damper a pivoting damper as the most common type of damper) to open and close said air inlet end of said air conduit; said cooling air conduit comprises an air manifold 22 which supplies forced ambient air onto a plurality of check valves; said air plenum/supply header 16 is mounted over said door 18 to enclose the same and wherein said air blower is mounted on said air plenum so that said discharge end of said air blower is in communication with the interior of said air plenum. Kaplan et al do not

teach using plural air inlets and plural air blowers. However, for applicant's claims, it is noted that this is regarded as merely duplicating/multiplying the number of cooling circuits where the issue of duplicating parts for multiplied effect has been regarded as being within the ordinary skill in the art, see *e.g. St Regis Paper Co. v. Bemis Co., Inc.* 193 USPQ 8, 11 (7th Cir. 1977). It would have been obvious to one of ordinary skill in the art to employ an additional inlet/plenum/blower, manifold/lines, check valves, etc. as being within the ordinary skill in the art, as held by the Courts, *e.g. St Regis Paper Co. v. Bemis Co., Inc.* 193 USPQ 8, 11 (7th Cir. 1977).

7. Claims 1-6, 8-15, 17-22, 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan et al (2005/0081525 with priority to 12/3/2002) as applied to above, and further in view of either Ludwig (5,649,418) or Mitchell (3,791,682). Kaplan et al teach various aspects of the invention including an enclosure but does not teach the details of the enclosure, including side walls, end walls and a roof nor access panels for the plenum. Ludwig teaches a gas turbine enclosure with side walls 26, end walls 28 and a roof 22. Mitchell teaches a gas turbine enclosure 22 with side walls, end walls, and a roof and also has access panels 32 (see col. 2, lines 26-39). It would have been obvious to one of ordinary skill in the art to employ an enclosure with side walls, end walls and a roof, as a well known type of enclosure used for enclosing a gas turbine engine. It would have been obvious to one of ordinary skill in the art to employ access doors in the plenum in order to allow access to the damper or cleaning and/or maintenance.

Art Unit: 3746

8. Claims 7, 16, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the art applied to the claims above, and further in view of Fleshman, Jr (4,529,120). The prior art teaches a damper but not a solenoid for controlling it. Fleshman, Jr teaches a solenoid 64 for controlling damper 61 which is in the air inlet 60. It would have been obvious to one of ordinary skill in the art to employ a solenoid to control the damper, as well known means for controlling the damper positioning.

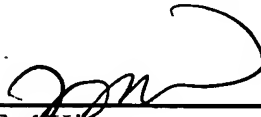
Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 571-272-4829. The Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax numbers for the organization where this application is assigned are 703-872-9306 for Regular faxes and 703-872-9306 for After Final faxes.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler, can be reached on 571-272-4834.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist of Technology Center 3700, whose telephone number is 703-308-0861. General inquiries can also be directed to the Patents Assistance Center whose telephone number is 800-786-9199. Furthermore, a variety of online resources are available at <http://www.uspto.gov/main/patents.htm>

 Ted Kim	Telephone	571-272-4829
Primary Examiner	Fax (Regular)	703-872-9306
May 31, 2005	Fax (After Final)	703-872-9306
Technology Center 3700 Receptionist	Telephone	703-308-0861
Patents Assistance Center	Telephone	800-786-9199